What is claimed is

1. A method for treating a hematopoietic disease, wherein the method comprises administering any one of the proteins selected from the group consisting of (a) to (d) shown below, or a polynucleotide encoding the protein:

(a) a protein comprising the amino acid sequence of SEQ ID No: 2;

(b) a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID No: 2, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2;

(c) a protein encoded by a polynucleotide that hybridizes under stringent conditions with a polynucleotide comprising the nucleotide sequence of SEQ ID No: 1, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2; and

(d) a protein encoded by a polynucleotide comprising a nucleotide sequence with at least 70% or more homology to the nucleotide sequence of SEQ ID No: 1, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2.

2. The method of claim 1, wherein the hematopoietic disease is a disease caused by abnormal erythroblast differentiation.

3. The method of claim 1, which comprises introducing a hematopoietic stem cell with a vector that harbors a polynucleotide in an expressible state.

4. A method for inducing erythroblast differentiation, wherein the method comprises expressing in a hematopoietic stem cell any one of the proteins selected from the group consisting of (a) to (d) shown below.

5. A pharmaceutical formulation for treating a hematopoietic disease, wherein the formulation comprises as an effective ingredient any one of the proteins selected from the group consisting of (a) to (d) shown below, or a polynucleotide encoding the protein:

(a) a protein comprising the amino acid sequence of SEQ ID No: 2;

(b) a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID No: 2, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2;

(c) a protein encoded by a polynucleotide that hybridizes under stringent conditions

with a polynucleotide comprising the nucleotide sequence of SEQ ID No: 1, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2; and

(d) a protein encoded by a polynucleotide comprising a nucleotide sequence with at least 70% or more homology to the nucleotide sequence of SEQ ID No: 1, wherein the protein is functionally equivalent to a protein comprising the amino acid sequence of SEQ ID No: 2.

6. The pharmaceutical formulation of claim 5, which is a hematopoietic stem cell harboring the polynucleotide in an expressible state.

7. A method for treating a hematopoietic disease, wherein the method comprises administering an agent that enhances the activity of a protein comprising the amino acid sequence of SEQ ID No: 2.

8. A therapeutic agent for a hematopoietic disease, which comprises an agent that enhances the activity of a protein comprising the amino acid sequence of SEQ ID No: 2 as an effective ingredient.

SEQUENCE LISTING

<110> Nakajima, Toshihiro
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<120> Essential Role of Synoviolin/HRD1 in Embryonic Hematopoiesis

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